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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------|
| 10/626,621 | 07/25/2003 | Toshiro Anraku | 12014-0019 | 9370 |
| 22902 | 7590 | 08/31/2005 | | |
| CLARK & BRODY 1090 VERNON AVENUE, NW SUITE 250 WASHINGTON, DC 20005 | | | EXAMINER PATEL, VISHAL A | |
| | | | ART UNIT 3679 | PAPER NUMBER |

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/626,621 | ANRAKU ET AL. | |
| | Examiner | Art Unit | |
| | Vishal Patel | 3679 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 June 2005 and 17 June 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) 11 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-10 and 12 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

1. Newly submitted claim 12 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The invention is directed to a method of drilling and as the claim stands the claim does not contain any steps.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 12 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-8, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima (US. 4,871,194) in view of Bestolife article (Bestolife 2000 NM, 12-01-1999, www.bestolife.com).

Kawashima et al disclose the claimed device with a threaded joint for steel pipes comprising a pin 18 and a box 20 each having a contact surface including a threaded portion 10 and an unthreaded contact portion 12, wherein the contact surface of at least one of the pin and box is coated with a metallic undercoating layer 16 and a lubricating coating layer thereon (column 4, lines 40-45), the undercoating layer has a porosity of 5-80% (column 4, lines 35-40) and a thickness of 1-30 micrometers (column 3, lines 45-55), the lubricating coating layer being

a liquid lubricating coating with a total thickness of the undercoating layer and the lubricating coating layer less than 100 micrometers. However, the lubricating coating is said (column 4, lines 40-45) to contain heavy metal powders. XXXXXXXX presents that it is known in the art to provide a threaded tubular coupling with lubricant thread compound that does not include heavy metals due to environmental concerns. It would have been obvious to a one having ordinary skill in the art at the time the invention was made to substitute the lubricant of the Kawashima et al. coupling with the lubricant thread compound Bestolife 2000 NM which does not include heavy metals such as taught by the Bestolife web site in order to protect the environment from excess lubricant containing heavy metals. Further, it would have been obvious since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

As to claim 2, since the same material for the undercoating is being used (column 3, lines 45-50) the material inherently would provide the same hardness of 50-250 Hv. As to claims 3 and 7, see all of column 3 continuing to lines 1-5 of column 4 which indicate the undercoating layer is formed by blast coating. As to claims 4 and 8, see column 3, lines 45-50, which indicates the undercoating layer is formed of metal selected from Zn or Al or the like. As to claims 6 and 10, Kawashima discloses using a binder in the solid lubricant coating, the binder being organic or inorganic. As to claim limitation that the threaded joint is used at high temperatures (intended use). The lubricating coating layer has a thickness and the metallic under coating layer has a thickness.

4. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,871,194 to Kawashima in view of Bestolife article (Bestolife 2000 NM, 12-01-1998, www.bestolife.com) ms applied to claims 1-4,6-8 and 10 above, and further in view of U.S. patent 3,625,893 to Brook.

As noted above the combination of Kawashima et al. and Bestolife discloses the claimed invention except for the particular lubricant of a basic metal salt of an organic acid. Brook discloses such a lubricant (column 2, lines 15-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the lubricant of Brooke having a basic metal salt of an organic acid as the lubricant compound of Kawashima et al. in order to provide further corrosion resistance and further, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

5. Applicant's arguments filed 6/2/05 and 6/17/05 has been fully considered but they are not persuasive.

Applicants' argument that the threaded joint of Kawashima is not used in high temperature is not persuasive because this limitation is considered to be intended use and furthermore this limitation is just a relative term (what one would consider to be high temperature environment compared to a low temperature environment). Furthermore Kawashima uses this in an oil well pipe joint, hence is used in a high temperature environment.

Applicants' argument that Bestolife does not teach that the compound is used in high temperatures is not persuasive because this limitation is already taught by Kawashima and

furthermore Bestolife is used to show that there are liquid lubricant material that are less harmful to the environment.

Applicants' argument that Kawashima does not teach the lubricating coating layer comprises solid lubricant and a binder, which can form an organic or inorganic coating, is not persuasive because the lubricant of Kawashima is organic or inorganic and is bonded to the undercoating.

Applicants' argument that Kawashima does not teach a lubricating coating layer is not persuasive because as specified by the applicant that Kawashima places grease on the undercoating thickness of the undercoating layer (see page 8 of argument). Furthermore Kawashima column 4, lines 40-45 teach that the grease is placed on the undercoating layer.

Applicants' argument that neither Kawashima nor Bestolife nor Brook teach that the lubricating layer has a thickness and the undercoating layer has a thickness is not persuasive because Kawashima teaches that the lubricating layer has a thickness and the under coating layer has a thickness (column 3 to column 4 of Kawashima).

Applicants' argument that Kawashima does not teach the ability of the porous metallic undercoating to further strengthen the adhesion of a lubricating layer placed on the undercoating layer is not persuasive because as claim by the applicant the undercoating layer has a porosity of 5-80%, which is taught by Kawashima.

Applicants' arguments presented in the supplemental response are not persuasive because each and every limitation of claims are taught by Kawashima, Bestolife and Brooks.

6. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore the reason of using the Brooks lubricant is this it provides corrosion resistance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
August 26, 2005



Vishal Patel
Patent Examiner, Tech. Center 3600